

Sequence Listing 05986-100M536-US1.txt  
SEQUENCE LISTING

<110> Wisniewski, Thomas  
Sigurdsson, Einar  
Goni, Fernando

<120> MUCOSAL IMMUNIZATION TO PREVENT PRION INFECTION

<130> 05986/100M536-US1

<150> PCT/US04/16242

<151> 2004-05-20

<150> 60/472,262

<151> 2003-05-20

<160> 32

<170> PatentIn version 3.3

<210> 1

<211> 253

<212> PRT

<213> Homo sapiens

<400> 1

Met Ala Asn Leu Gly Cys Trp Met Leu Val Leu Phe Val Ala Thr Trp  
1 5 10 15

Ser Asp Leu Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly Trp Asn  
20 25 30

Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly Gly Asn Arg  
35 40 45

Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly  
50 55 60

Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly  
65 70 75 80

Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Gly Gly Gly Thr His  
85 90 95

Ser Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His Met  
100 105 110

Ala Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly Leu Gly Gly Tyr  
115 120 125

Met Leu Gly Ser Ala Met Ser Arg Pro Ile Ile His Phe Gly Ser Asp  
130 135 140

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Tyr Glu Asp Arg Tyr Tyr Arg Glu Asn Met His Arg Tyr Pro Asn Gln  
145 150 155 160

Val Tyr Tyr Arg Pro Met Asp Glu Tyr Ser Asn Gln Asn Asn Phe Val  
165 170 175

His Asp Cys Val Asn Ile Thr Ile Lys Gln His Thr Val Thr Thr Thr  
180 185 190

Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Val Lys Met Met Glu Arg  
195 200 205

Val Val Glu Gln Met Cys Ile Thr Gln Tyr Glu Arg Glu Ser Gln Ala  
210 215 220

Tyr Tyr Gln Arg Gly Ser Ser Met Val Leu Phe Ser Ser Pro Pro Val  
225 230 235 240

Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Ile Val Gly  
245 250

<210> 2  
<211> 264  
<212> PRT  
<213> Bovine

<400> 2

Met Val Lys Ser His Ile Gly Ser Trp Ile Leu Val Leu Phe Val Ala  
1 5 10 15

Met Trp Ser Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly  
20 25 30

Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly  
35 40 45

Gly Asn Arg Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His  
50 55 60

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His  
65 70 75 80

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His  
85 90 95

Gly Gly Gly Gly Trp Gly Gln Gly Gly Thr His Gly Gln Trp Asn Lys  
100 105 110

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Pro Ser Lys Pro Lys Thr Asn Met Lys His Val Ala Gly Ala Ala Ala  
115 120 125

Ala Gly Ala Val Val Gly Gly Leu Gly Gly Tyr Met Leu Gly Ser Ala  
130 135 140

Met Ser Arg Pro Leu Ile His Phe Gly Ser Asp Tyr Glu Asp Arg Tyr  
145 150 155 160

Tyr Arg Glu Asn Met His Arg Tyr Pro Asn Gln Val Tyr Tyr Arg Pro  
165 170 175

Val Asp Gln Tyr Ser Asn Gln Asn Asn Phe Val His Asp Cys Val Asn  
180 185 190

Ile Thr Val Lys Glu His Thr Val Thr Thr Thr Thr Lys Gly Glu Asn  
195 200 205

Phe Thr Glu Thr Asp Ile Lys Met Met Glu Arg Val Val Glu Gln Met  
210 215 220

Cys Ile Thr Gln Tyr Gln Arg Glu Ser Gln Ala Tyr Tyr Gln Arg Gly  
225 230 235 240

Ala Ser Val Ile Leu Phe Ser Ser Pro Pro Val Ile Leu Leu Ile Ser  
245 250 255

Phe Leu Ile Phe Leu Ile Val Gly  
260

<210> 3  
<211> 256  
<212> PRT  
<213> Deer

<400> 3

Met Val Lys Ser His Ile Gly Ser Trp Ile Leu Val Leu Phe Val Ala  
1 5 10 15

Met Trp Ser Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly  
20 25 30

Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly  
35 40 45

Gly Asn Arg Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His  
50 55 60

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Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His  
65 70 75 80

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Gly Trp Gly Gln Gly  
85 90 95

Gly Thr His Ser Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met  
100 105 110

Lys His Val Ala Gly Ala Ala Ala Gly Ala Val Val Gly Gly Leu  
115 120 125

Gly Gly Tyr Met Leu Gly Ser Ala Met Ser Arg Pro Leu Ile His Phe  
130 135 140

Gly Asn Asp Tyr Glu Asp Arg Tyr Tyr Arg Glu Asn Met Tyr Arg Tyr  
145 150 155 160

Pro Asn Gln Val Tyr Tyr Arg Pro Val Asp Gln Tyr Asn Asn Gln Asn  
165 170 175

Thr Phe Val His Asp Cys Val Asn Ile Thr Val Lys Gln His Thr Val  
180 185 190

Thr Thr Thr Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Ile Lys Met  
195 200 205

Met Glu Arg Val Val Glu Gln Met Cys Ile Thr Gln Tyr Gln Arg Glu  
210 215 220

Ser Glu Ala Tyr Tyr Gln Arg Gly Ala Ser Val Ile Leu Phe Ser Ser  
225 230 235 240

Pro Pro Val Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Ile Val Gly  
245 250 255

<210> 4  
<211> 256  
<212> PRT  
<213> Elk

<400> 4

Met Val Lys Ser His Ile Gly Ser Trp Ile Leu Val Leu Phe Val Ala  
1 5 10 15

Met Trp Ser Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly  
20 25 30

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Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly  
35 40 45

Gly Asn Arg Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His  
50 55 60

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His  
65 70 75 80

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Gly Trp Gly Gln Gly  
85 90 95

Gly Thr His Ser Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met  
100 105 110

Lys His Val Ala Gly Ala Ala Ala Gly Ala Val Val Gly Gly Leu  
115 120 125

Gly Gly Tyr Met Leu Gly Ser Ala Met Ser Arg Pro Leu Ile His Phe  
130 135 140

Gly Asn Asp Tyr Glu Asp Arg Tyr Tyr Arg Glu Asn Met Tyr Arg Tyr  
145 150 155 160

Pro Asn Gln Val Tyr Tyr Arg Pro Val Asp Gln Tyr Asn Asn Gln Asn  
165 170 175

Thr Phe Val His Asp Cys Val Asn Ile Thr Val Lys Gln His Thr Val  
180 185 190

Thr Thr Thr Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Ile Lys Met  
195 200 205

Met Glu Arg Val Val Glu Gln Met Cys Ile Thr Gln Tyr Gln Arg Glu  
210 215 220

Ser Glu Ala Tyr Tyr Gln Arg Gly Ala Ser Val Ile Leu Phe Ser Ser  
225 230 235 240

Pro Pro Val Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Ile Val Gly  
245 250 255

<210> 5

<211> 256

<212> PRT

<213> Odocoileus hemionus

<400> 5

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Met Val Lys Ser His Ile Gly Ser Trp Ile Leu Val Leu Phe Val Ala  
1 5 10 15

Met Trp Ser Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly  
20 25 30

Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly  
35 40 45

Gly Asn Arg Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His  
50 55 60

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His  
65 70 75 80

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Gly Trp Gly Gln Gly  
85 90 95

Gly Thr His Ser Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met  
100 105 110

Lys His Val Ala Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly Leu  
115 120 125

Gly Gly Tyr Met Leu Gly Ser Ala Met Asn Arg Pro Leu Ile His Phe  
130 135 140

Gly Asn Asp Tyr Glu Asp Arg Tyr Tyr Arg Glu Asn Met Tyr Arg Tyr  
145 150 155 160

Pro Asn Gln Val Tyr Tyr Arg Pro Val Asp Gln Tyr Asn Asn Gln Asn  
165 170 175

Thr Phe Val His Asp Cys Val Asn Ile Thr Val Lys Gln His Thr Val  
180 185 190

Thr Thr Thr Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Ile Lys Met  
195 200 205

Met Glu Arg Val Val Glu Gln Met Cys Ile Thr Gln Tyr Gln Arg Glu  
210 215 220

Ser Gln Ala Tyr Tyr Gln Arg Gly Ala Ser Val Ile Leu Phe Ser Ser  
225 230 235 240

Pro Pro Val Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Ile Val Gly  
245 250 255

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<210> 6  
 <211> 254  
 <212> PRT  
 <213> Mus musculus

<400> 6

Met Ala Asn Leu Gly Tyr Trp Leu Leu Ala Leu Phe Val Thr Met Trp  
 1 5 10 15

Thr Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly Trp Asn  
 20 25 30

Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly Gly Asn Arg  
 35 40 45

Tyr Pro Pro Gln Gly Gly Thr Trp Gly Gln Pro His Gly Gly Gly Trp  
 50 55 60

Gly Gln Pro His Gly Gly Ser Trp Gly Gln Pro Pro Gly Gly Ser Trp  
 65 70 75 80

Gly Gln Pro His Gly Gly Gly Trp Gly Gln Gly Gly Gly Thr His Asn  
 85 90 95

Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Leu Lys His Val Ala  
 100 105 110

Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly Leu Gly Gly Tyr Met  
 115 120 125

Leu Gly Ser Ala Met Ser Arg Pro Met Ile His Phe Gly Asn Asp Trp  
 130 135 140

Glu Asp Arg Tyr Tyr Arg Glu Asn Met Tyr Arg Tyr Pro Asn Gln Val  
 145 150 155 160

Tyr Tyr Arg Pro Val Asp Gln Tyr Ser Asn Gln Asn Asn Phe Val His  
 165 170 175

Asp Cys Val Asn Ile Thr Ile Lys Gln His Thr Val Thr Thr Thr  
 180 185 190

Lys Gly Glu Asn Phe Thr Glu Thr Asp Val Lys Met Met Glu Arg Val  
 195 200 205

Val Glu Gln Met Cys Val Thr Gln Tyr Gln Lys Glu Ser Asp Ala Tyr  
 210 215 220

Sequence Listing 05986-100M536-US1.txt

Tyr Asp Gly Arg Arg Ser Ser Ser Thr Val Leu Phe Ser Ser Pro Pro  
225 230 235 240

Val Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Ile Val Gly  
245 250

<210> 7  
<211> 225  
<212> PRT  
<213> Rattus norvegicus

<400> 7

Gly Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro  
1 5 10 15

Gly Gly Asn Arg Tyr Pro Pro Gln Ser Gly Gly Thr Trp Gly Gln Pro  
20 25 30

His Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro  
35 40 45

His Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Ser Gln Gly  
50 55 60

Gly Gly Thr His Asn Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn  
65 70 75 80

Leu Lys His Val Ala Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly  
85 90 95

Leu Gly Gly Tyr Met Leu Gly Ser Ala Met Ser Arg Pro Met Leu His  
100 105 110

Phe Gly Asn Asp Trp Glu Asp Arg Tyr Tyr Arg Glu Asn Met Tyr Arg  
115 120 125

Tyr Pro Asn Gln Val Tyr Tyr Arg Pro Val Asp Gln Tyr Ser Asn Gln  
130 135 140

Asn Asn Phe Val His Asp Cys Val Asn Ile Thr Ile Lys Gln His Thr  
145 150 155 160

Val Thr Thr Thr Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Val Lys  
165 170 175

Met Met Glu Arg Val Val Glu Gln Met Cys Val Thr Gln Tyr Gln Lys  
180 185 190



Sequence Listing 05986-100M536-US1.txt

Glu Ser Gln Ala Tyr Tyr Asp Gly Arg Arg Ser Ser Ala Val Leu Phe  
195 200 205

Ser Ser Pro Pro Val Ile Leu Leu Ile Ser Leu Ile Phe Leu Ile Val  
210 215 220

Gly  
225

<210> 8.  
<211> 256  
<212> PRT  
<213> Sheep

<400> 8

Met Val Lys Ser His Ile Gly Ser Trp Ile Leu Val Leu Phe Val Ala  
1 5 10 15

Met Trp Ser Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly  
20 25 30

Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly  
35 40 45

Gly Asn Arg Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His  
50 55 60

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His  
65 70 75 80

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Gly Trp Gly Gln Gly  
85 90 95

Gly Ser His Ser Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met  
100 105 110

Lys His Val Ala Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly Leu  
115 120 125

Gly Gly Tyr Met Leu Gly Ser Ala Met Ser Arg Pro Leu Ile His Phe  
130 135 140

Gly Asn Asp Tyr Glu Asp Arg Tyr Tyr Arg Glu Asn Met Tyr Arg Tyr  
145 150 155 160

Pro Asn Gln Val Tyr Tyr Arg Pro Val Asp Arg Tyr Ser Asn Gln Asn  
165 170 175

Sequence Listing 05986-100M536-US1.txt

Asn Phe Val His Asp Cys Val Asn Ile Thr Val Lys Gln His Thr Val  
180 185 190

Thr Thr Thr Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Ile Lys Ile  
195 200 205

Met Glu Arg Val Val Glu Gln Met Cys Ile Thr Gln Tyr Gln Arg Glu  
210 215 220

Ser Gln Ala Tyr Tyr Gln Arg Gly Ala Ser Val Ile Leu Phe Ser Ser  
225 230 235 240

Pro Pro Val Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Ile Val Gly  
245 250 255

<210> 9  
<211> 256  
<212> PRT  
<213> Goat

<400> 9

Met Val Lys Ser His Ile Gly Ser Trp Ile Leu Val Leu Phe Val Ala  
1 5 10 15

Met Trp Ser Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly  
20 25 30

Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly  
35 40 45

Gly Asn Arg Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His  
50 55 60

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His  
65 70 75 80

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Gly Trp Gly Gln Gly  
85 90 95

Gly Ser His Ser Asp Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met  
100 105 110

Lys His Val Ala Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly Leu  
115 120 125

Gly Gly Tyr Met Leu Gly Ser Ala Met Ser Arg Pro Leu Ile His Phe  
130 135 140

Sequence Listing 05986-100M536-US1.txt

Gly His Asp Tyr Glu Asp Arg Tyr Tyr Arg Glu Asn Met Tyr Arg Tyr  
145 150 155 160

Pro Asn Gln Val Tyr Tyr Arg Pro Val Asp Gln Tyr Ser His Gln Asn  
165 170 175

Asn Phe Val His Asp Cys Val Asn Ile Thr Val Lys Gln His Thr Val  
180 185 190

Thr Thr Thr Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Ile Lys Ile  
195 200 205

Met Glu Arg Val Val Glu Gln Met Cys Ile Thr Gln Tyr Gln Arg Glu  
210 215 220

Ser Gln Ala Tyr Tyr Gln Arg Gly Ala Ser Val Ile Leu Phe Ser Pro  
225 230 235 240

Pro Pro Val Ile Leu Leu Ile Ser Leu Leu Ile Leu Leu Ile Val Gly  
245 250 255

<210> 10  
<211> 254  
<212> PRT  
<213> Syrian hamster

<400> 10

Met Ala Asn Leu Ser Tyr Trp Leu Leu Ala Leu Phe Val Ala Met Trp  
1 5 10 15

Thr Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly Trp Asn  
20 25 30

Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly Gly Asn Arg  
35 40 45

Tyr Pro Pro Gln Gly Gly Gly Thr Trp Gly Gln Pro His Gly Gly Gly  
50 55 60

Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly  
65 70 75 80

Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Gly Gly Gly Thr His  
85 90 95

Asn Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His Met  
100 105 110

Sequence Listing 05986-100M536-US1.txt

Ala Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly Leu Gly Gly Tyr  
115 120 125

Met Leu Gly Ser Ala Met Ser Arg Pro Met Met His Phe Gly Asn Asp  
130 135 140

Trp Glu Asp Arg Tyr Tyr Arg Glu Asn Met Asn Arg Tyr Pro Asn Gln  
145 150 155 160

Val Tyr Tyr Arg Pro Val Asp Gln Tyr Asn Asn Gln Asn Asn Phe Val  
165 170 175

His Asp Cys Val Asn Ile Thr Ile Lys Gln His Thr Val Thr Thr Tyr  
180 185 190

Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Ile Lys Ile Met Glu Arg  
195 200 205

Val Val Glu Gln Met Cys Thr Thr Gln Tyr Gln Lys Glu Ser Gln Ala  
210 215 220

Tyr Tyr Asp Gly Arg Arg Ser Ser Ala Val Leu Phe Ser Ser Pro Pro  
225 230 235 240

Val Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Met Val Gly  
245 250

<210> 11  
<211> 258  
<212> PRT  
<213> Mink

<400> 11

Met Val Lys Ser His Ile Gly Ser Trp Leu Leu Val Leu Phe Val Ala  
1 5 10 15

Thr Trp Ser Asp Ile Gly Phe Cys Lys Lys Arg Pro Lys Pro Gly Gly  
20 25 30

Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly  
35 40 45

Gly Asn Arg Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His  
50 55 60

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His  
65 70 75 80

Sequence Listing 05986-100M536-US1.txt

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Gly  
85 90 95

Gly Gly Ser His Gly Gln Trp Gly Lys Pro Ser Lys Pro Lys Thr Asn  
100 105 110

Met Lys His Val Ala Gly Ala Ala Ala Gly Ala Val Val Gly Gly  
115 120 125

Leu Gly Gly Tyr Met Leu Gly Ser Ala Met Ser Arg Pro Leu Ile His  
130 135 140

Phe Gly Asn Asp Tyr Glu Asp Arg Tyr Tyr Arg Glu Asn Met Tyr Arg  
145 150 155 160

Tyr Pro Asn Gln Val Tyr Tyr Lys Pro Val Asp Gln Tyr Ser Asn Gln  
165 170 175

Asn Asn Phe Val His Asp Cys Val Asn Ile Thr Val Lys Gln His Thr  
180 185 190

Val Thr Thr Thr Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Met Lys  
195 200 205

Ile Met Glu Arg Val Val Glu Gln Met Cys Val Thr Gln Tyr Gln Arg  
210 215 220

Glu Ser Glu Ala Ala Tyr Tyr Gln Arg Gly Ala Ser Ala Ile Leu Phe  
225 230 235 240

Ser Pro Pro Pro Val Ile Leu Leu Ile Ser Leu Leu Ile Leu Leu Ile  
245 250 255

Val Gly

<210> 12  
<211> 253  
<212> PRT  
<213> Gorilla

<400> 12

Met Ala Asn Leu Gly Cys Trp Met Leu Val Leu Phe Val Ala Thr Trp  
1 5 10 15

Ser Asp Leu Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly Trp Asn  
20 25 30

Sequence Listing 05986-100M536-US1.txt

Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly Gly Asn Arg  
35 40 45

Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly  
50 55 60

Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly  
65 70 75 80

Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Gly Gly Gly Thr His  
85 90 95

Ser Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His Met  
100 105 110

Ala Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly Leu Gly Gly Tyr  
115 120 125

Met Leu Gly Ser Ala Met Ser Arg Pro Ile Ile His Phe Gly Ser Asp  
130 135 140

Tyr Glu Asp Arg Tyr Tyr Arg Glu Asn Met His Arg Tyr Pro Asn Gln  
145 150 155 160

Val Tyr Tyr Arg Pro Met Asp Gln Tyr Ser Asn Gln Asn Asn Phe Val  
165 170 175

His Asp Cys Val Asn Ile Thr Ile Lys Gln His Thr Val Thr Thr Thr  
180 185 190

Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Val Lys Met Met Glu Arg  
195 200 205

Val Val Glu Gln Met Cys Ile Thr Gln Tyr Glu Arg Glu Ser Gln Ala  
210 215 220

Tyr Tyr Gln Arg Gly Ser Ser Met Val Leu Phe Ser Ser Pro Pro Val  
225 230 235 240

Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Ile Val Gly  
245 250

<210> 13  
<211> 254  
<212> PRT  
<213> Chimpanzee

<400> 13

Sequence Listing 05986-100M536-US1.txt

Met Ala Asn Leu Gly Cys Trp Met Leu Val Leu Phe Val Ala Thr Trp  
1 5 10 15

Ser Asp Leu Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly Trp Asn  
20 25 30

Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly Gly Asn Arg  
35 40 45

Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly  
50 55 60

Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly  
65 70 75 80

Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Gly Gly Gly Thr His  
85 90 95

Ser Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His Met  
100 105 110

Ala Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly Leu Gly Gly Tyr  
115 120 125

Met Leu Gly Ser Ala Met Ser Arg Pro Ile Ile His Phe Gly Ser Asp  
130 135 140

Tyr Glu Asp Arg Tyr Tyr Arg Glu Asn Met His Arg Tyr Pro Asn Gln  
145 150 155 160

Val Tyr Tyr Arg Pro Met Asp Gln Tyr Ser Ser Gln Asn Asn Phe Val  
165 170 175

His Asp Cys Val Asn Ile Thr Ile Lys Gln His Thr Val Thr Thr Thr  
180 185 190

Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Val Lys Met Met Glu Arg  
195 200 205

Val Val Glu Gln Met Cys Ile Thr Gln Tyr Glu Arg Glu Ser Gln Ala  
210 215 220

Tyr Tyr Gln Arg Gly Ser Ser Met Val Leu Phe Ser Ser Pro Pro Val  
225 230 235 240

Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Leu Ile Val Gly  
245 250

Sequence Listing 05986-100M536-US1.txt

<210> 14  
 <211> 263  
 <212> PRT  
 <213> Greater Kudu

<400> 14

Met Val Lys Ser His Ile Gly Ser Trp Ile Leu Val Leu Phe Val Ala  
 1 5 10 15

Met Trp Ser Asp Val Ala Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly  
 20 25 30

Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly  
 35 40 45

Gly Asn Arg Tyr Pro Ser Gln Gly Gly Gly Gly Trp Gly Gln Pro His  
 50 55 60

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His  
 65 70 75 80

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His  
 85 90 95

Gly Gly Gly Gly Trp Gly Gln Gly Gly Thr His Gly Gln Trp Asn Lys  
 100 105 110

Pro Ser Lys Lys Thr Asn Met Lys His Val Ala Gly Ala Ala Ala Ala  
 115 120 125

Gly Ala Val Val Gly Gly Leu Gly Gly Tyr Met Leu Gly Ser Ala Met  
 130 135 140

Ser Arg Pro Leu Ile His Phe Gly Ser Asp Tyr Glu Asp Arg Tyr Tyr  
 145 150 155 160

Arg Glu Asn Met Tyr Arg Tyr Pro Asn Gln Val Tyr Tyr Arg Pro Val  
 165 170 175

Asp Gln Tyr Ser Asn Gln Asn Asn Phe Val His Asp Val Asn Asn Ile  
 180 185 190

Thr Val Lys Gln His Thr Val Thr Thr Thr Thr Lys Gly Glu Asn Phe  
 195 200 205

Thr Glu Thr Asp Ile Lys Met Met Glu Arg Val Val Glu Gln Met Cys  
 210 215 220



Sequence Listing 05986-100M536-US1.txt

Ile Thr Gln Tyr Gln Arg Glu Ser Glu Ala Tyr Tyr Gln Arg Gly Ala  
225 230 235 240

Ser Val Ile Leu Phe Ser Ser Pro Pro Val Ile Leu Leu Ile Ser Phe  
245 250 255

Leu Ile Phe Leu Ile Val Gly  
260

<210> 15  
<211> 255  
<212> PRT  
<213> Camel

<400> 15

Met Val Lys Ser His Met Gly Ser Trp Ile Leu Val Leu Phe Val Val  
1 5 10 15

Thr Trp Ser Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly  
20 25 30

Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly  
35 40 45

Gly Tyr Arg Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His  
50 55 60

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His  
65 70 75 80

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Gly Gly  
85 90 95

Gly Ala His Gly Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Ser Met  
100 105 110

Lys His Val Ala Gly Ala Ala Ala Gly Ala Val Val Gly Gly Leu  
115 120 125

Gly Gly Tyr Met Leu Gly Ser Ala Met Ser Arg Pro Leu Ile His Phe  
130 135 140

Gly Asn Asp Tyr Glu Asp Arg Tyr Tyr Arg Glu Asn Met Tyr Arg Tyr  
145 150 155 160

Pro Asn Gln Val Tyr Tyr Lys Pro Val Asp Gln Tyr Ser Asn Gln Asn  
165 170 175

Sequence Listing 05986-100M536-US1.txt

Ser Phe Val His Asp Cys Val Asn Ile Thr Val Lys Gln His Thr Val  
180 185 190

Thr Thr Thr Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Val Lys Met  
195 200 205

Met Glu Arg Val Val Glu Gln Met Cys Ile Thr Gln Tyr Gln Arg Glu  
210 215 220

Tyr Gln Ala Ser Tyr Gly Arg Gly Ala Ser Val Ile Phe Ser Ser Pro  
225 230 235 240

Pro Val Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Ile Val Gly  
245 250 255

<210> 16  
<211> 257  
<212> PRT  
<213> Pig

<400> 16

Met Val Lys Ser His Ile Gly Gly Trp Ile Leu Val Leu Phe Val Ala  
1 5 10 15

Ala Trp Ser Asp Ile Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly  
20 25 30

Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly  
35 40 45

Gly Asn Arg Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His  
50 55 60

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His  
65 70 75 80

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Gly Trp Gly Gln Gly  
85 90 95

Gly Gly Ser His Gly Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn  
100 105 110

Met Lys His Val Ala Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly  
115 120 125

Leu Gly Gly Tyr Met Leu Gly Ser Ala Met Ser Arg Pro Leu Ile His  
130 135 140

Sequence Listing 05986-100M536-US1.txt

Phe Gly Ser Asp Tyr Glu Asp Arg Tyr Tyr Arg Glu Asn Met His Arg  
145 150 155 160

Tyr Pro Asn Gln Val Tyr Tyr Arg Pro Val Asp Gln Tyr Ser Asn Gln  
165 170 175

Asn Ser Phe Val His Asp Cys Val Asn Ile Thr Val Lys Glu His Thr  
180 185 190

Val Thr Thr Thr Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Val Lys  
195 200 205

Met Ile Glu Arg Val Val Glu Gln Met Cys Ile Thr Gln Tyr Gln Lys  
210 215 220

Glu Tyr Glu Ala Tyr Ala Gln Arg Gly Ala Ser Val Ile Leu Phe Ser  
225 230 235 240

Ser Pro Pro Val Ile Leu Leu Ile Ser Phe Leu Leu Phe Leu Ile Val  
245 250 255

Gly

<210> 17  
<211> 253  
<212> PRT  
<213> Artificial

<220>  
<223> homolog of full-length human prion

<220>  
<221> MISC\_FEATURE  
<222> (1)..(253)  
<223> Xaa is is Val, Val, Tyr, Met, Leu, Pro, Asp, Glu, Lys, Gly or Ser

<400> 17

Met Ala Asn Leu Gly Cys Trp Met Leu Val Leu Phe Val Ala Thr Trp  
1 5 10 15

Ser Asp Leu Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly Trp Asn  
20 25 30

Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly Gly Asn Arg  
35 40 45

Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly  
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50

55

60

Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly  
65 70 75 80

Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Gly Gly Gly Thr His  
85 90 95

Ser Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His Met  
100 105 110

Ala Gly Ala Ala Ala Ala Gly Ala Xaa Xaa Xaa Gly Gly Leu Gly Gly  
115 120 125

Xaa Xaa Gly Ser Ala Met Ser Arg Pro Ile Ile His Phe Gly Ser Asp  
130 135 140

Tyr Glu Asp Arg Tyr Tyr Arg Glu Asn Met His Arg Tyr Pro Asn Gln  
145 150 155 160

Val Tyr Tyr Arg Pro Met Asp Glu Tyr Ser Asn Gln Asn Asn Phe Val  
165 170 175

His Asp Cys Val Asn Ile Thr Ile Lys Gln His Thr Val Thr Thr Thr  
180 185 190

Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Val Lys Met Met Glu Arg  
195 200 205

Val Val Glu Gln Met Cys Ile Thr Gln Tyr Glu Arg Glu Ser Gln Ala  
210 215 220

Tyr Tyr Gln Arg Gly Ser Ser Met Val Leu Phe Ser Ser Pro Pro Val  
225 230 235 240

Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Ile Val Gly  
245 250

<210> 18  
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<220>  
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<220>  
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Sequence Listing 05986-100M536-US1.txt

<223> Xaa is Val, Val, Tyr, Met, Leu, Pro, Asp, Glu, Lys, Gly, or Ser

<400> 18

Met Val Lys Ser His Ile Gly Ser Trp Ile Leu Val Leu Phe Val Ala  
1 5 10 15

Met Trp Ser Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly  
20 25 30

Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly  
35 40 45

Gly Asn Arg Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His  
50 55 60

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His  
65 70 75 80

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His  
85 90 95

Gly Gly Gly Gly Trp Gly Gln Gly Gly Thr His Gly Gln Trp Asn Lys  
100 105 110

Pro Ser Lys Pro Lys Thr Asn Met Lys His Val Ala Gly Ala Ala Ala  
115 120 125

Ala Gly Ala Xaa Xaa Gly Gly Leu Gly Gly Xaa Xaa Xaa Gly Ser Ala  
130 135 140

Met Ser Arg Pro Leu Ile His Phe Gly Ser Asp Tyr Glu Asp Arg Tyr  
145 150 155 160

Tyr Arg Glu Asn Met His Arg Tyr Pro Asn Gln Val Tyr Tyr Arg Pro  
165 170 175

Val Asp Gln Tyr Ser Asn Gln Asn Asn Phe Val His Asp Cys Val Asn  
180 185 190

Ile Thr Val Lys Glu His Thr Val Thr Thr Thr Thr Lys Gly Glu Asn  
195 200 205

Phe Thr Glu Thr Asp Ile Lys Met Met Glu Arg Val Val Glu Gln Met  
210 215 220

Cys Ile Thr Gln Tyr Gln Arg Glu Ser Gln Ala Tyr Tyr Gln Arg Gly  
225 230 235 240

Sequence Listing 05986-100M536-US1.txt

Ala Ser Val Ile Leu Phe Ser Ser Pro Pro Val Ile Leu Leu Ile Ser  
                   245                  250                  255

Phe Leu Ile Phe Leu Ile Val Gly  
                   260

<210> 19  
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 <212> PRT  
 <213> Artificial

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<220>  
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 <223> Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<220>  
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 <222> (42)..(51)  
 <223> Xaa is Val, Val, Tyr, Met, Leu, Pro, Asp, Glu, Lys, Gly, or Ser

<400> 19

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Gln Gly Gly Gly Thr  
 1                  5                  10                  15

His Ser Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His  
                   20                  25                  30

Met Ala Gly Ala Ala Ala Ala Gly Ala Xaa Xaa Gly Gly Leu Gly Gly  
                   35                  40                  45

Xaa Xaa Xaa Gly Ser Ala Met Ser Arg Pro Ile Ile His Phe Gly Ser  
                   50                  55                  60

Asp  
 65

<210> 20  
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<220>  
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 <223> Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

Sequence Listing 05986-100M536-US1.txt

<220>  
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 <223> Xaa is Val, Val, Tyr, Met, Leu, Pro, Asp, Glu, Lys, Gly, or Ser

<400> 20

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Gln Gly Gly Gly Thr  
 1 5 10 15

His Ser Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His  
 20 25 30

Met Ala Gly Ala Ala Ala Ala Gly Ala Xaa Xaa Gly Gly Leu Gly Gly  
 35 40 45

Xaa Xaa Xaa Gly Ser Ala Met Ser Arg Pro Ile Ile His Phe Gly Ser  
 50 55 60

Asp Gly Gln Gly Gly Gly Thr His Ser Gln Trp Asn Lys Pro Ser Lys  
 65 70 75 80

Pro Lys Thr Asn Met Lys His Met Ala Gly Ala Ala Ala Ala Gly Ala  
 85 90 95

Xaa Xaa Gly Gly Leu Gly Gly Xaa Xaa Xaa Gly Ser Ala Met Ser Arg  
 100 105 110

Pro Ile Ile His Phe Gly Ser Asp  
 115 120

<210> 21  
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<220>  
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 <222> (32)..(41)  
 <223> Xaa is Val, Tyr, Met, Leu, Pro, Asp, Glu, Lys, Gly, or Ser

<220>  
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 <222> (56)..(65)  
 <223> Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<400> 21

Gly Gln Gly Gly Gly Thr His Ser Gln Trp Asn Lys Pro Ser Lys Pro  
 1 5 10 15

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Lys Thr Asn Met Lys His Met Ala Gly Ala Ala Ala Ala Gly Ala Xaa  
20 25 30

Xaa Gly Gly Leu Gly Gly Xaa Xaa Xaa Gly Ser Ala Met Ser Arg Pro  
35 40 45

Ile Ile His Phe Gly Ser Asp Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
50 55 60

Xaa  
65

<210> 22  
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<220>  
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<223> Xaa is Val, Tyr, Met, Leu, Pro, Asp, Glu, Lys, Gly, or Ser

<220>  
<221> MISC\_FEATURE  
<222> (111)..(120)  
<223> Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<400> 22

Gly Gln Gly Gly Gly Thr His Ser Gln Trp Asn Lys Pro Ser Lys Pro  
1 5 10 15

Lys Thr Asn Met Lys His Met Ala Gly Ala Ala Ala Ala Gly Ala Xaa  
20 25 30

Xaa Gly Gly Leu Gly Gly Xaa Xaa Xaa Gly Ser Ala Met Ser Arg Pro  
35 40 45

Ile Ile His Phe Gly Ser Asp Gly Gln Gly Gly Gly Thr His Ser Gln  
50 55 60

Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His Met Ala Gly  
65 70 75 80

Ala Ala Ala Ala Gly Ala Xaa Xaa Gly Gly Leu Gly Gly Xaa Xaa Xaa  
85 90 95



Sequence Listing 05986-100M536-US1.txt

Gly Ser Ala Met Ser Arg Pro Ile Ile His Phe Gly Ser Asp Xaa Xaa  
 100 105 110

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 115 120

<210> 23  
 <211> 75  
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<220>  
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<220>  
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 <222> (1)..(10)  
 <223> Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<220>  
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 <222> (42)..(51)  
 <223> Xaa is Val, Tyr, Met, Leu, Pro, Asp, Glu, Lys, Gly, or Ser

<220>  
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 <223> Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<400> 23

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Gln Gly Gly Gly Thr  
 1 5 10 15

His Ser Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His  
 20 25 30

Met Ala Gly Ala Ala Ala Ala Gly Ala Xaa Xaa Gly Gly Leu Gly Gly  
 35 40 45

Xaa Xaa Xaa Gly Ser Ala Met Ser Arg Pro Ile Ile His Phe Gly Ser  
 50 55 60

Asp Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 65 70 75

<210> 24  
 <211> 130  
 <212> PRT  
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<220>  
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Sequence Listing 05986-100M536-US1.txt

<220>  
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 <222> (1)..(10)  
 <223> Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<220>  
 <221> MISC\_FEATURE  
 <222> (42)..(106)  
 <223> Xaa is Val, Tyr, Met, Leu, Pro, Asp, Glu, Lys, Gly, or Ser

<220>  
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 <222> (121)..(130)  
 <223> Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<400> 24

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Gln Gly Gly Gly Thr  
 1 5 10 15

His Ser Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His  
 20 25 30

Met Ala Gly Ala Ala Ala Ala Gly Ala Xaa Xaa Gly Gly Leu Gly Gly  
 35 40 45

Xaa Xaa Xaa Gly Ser Ala Met Ser Arg Pro Ile Ile His Phe Gly Ser  
 50 55 60

Asp Gly Gln Gly Gly Gly Thr His Ser Gln Trp Asn Lys Pro Ser Lys  
 65 70 75 80

Pro Lys Thr Asn Met Lys His Met Ala Gly Ala Ala Ala Ala Gly Ala  
 85 90 95

Xaa Xaa Gly Gly Leu Gly Gly Xaa Xaa Xaa Gly Ser Ala Met Ser Arg  
 100 105 110

Pro Ile Ile His Phe Gly Ser Asp Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 115 120 125

Xaa Xaa  
 130

<210> 25  
 <211> 73  
 <212> PRT  
 <213> Artificial

<220>  
 <223> homolog of fragment of bovine prion

<220>

Sequence Listing 05986-100M536-US1.txt

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 <223> Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<220>  
 <221> MISC\_FEATURE  
 <222> (50)..(59)  
 <223> Xaa is Val, Val, Tyr, Met, Leu, Pro, Asp, Glu, Lys, Gly, or Ser

<400> 25

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Gln Pro His Gly Gly  
 1 5 10 15

Gly Gly Trp Gly Gln Gly Gly Thr His Gly Gln Trp Asn Lys Pro Ser  
 20 25 30

Lys Pro Lys Thr Asn Met Lys His Val Ala Gly Ala Ala Ala Gly  
 35 40 45

Ala Xaa Xaa Gly Gly Leu Gly Gly Xaa Xaa Xaa Gly Ser Ala Met Ser  
 50 55 60

Arg Pro Leu Ile His Phe Gly Asn Asp  
 65 70

<210> 26  
 <211> 136  
 <212> PRT  
 <213> Artificial

<220>  
 <223> homolog of fragment of bovine prion

<220>  
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 <223> Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<220>  
 <221> MISC\_FEATURE  
 <222> (50)..(122)  
 <223> Xaa is Val, Val, Tyr, Met, Leu, Pro, Asp, Glu, Lys, Gly, or Ser

<400> 26

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Gln Pro His Gly Gly  
 1 5 10 15

Gly Gly Trp Gly Gln Gly Gly Thr His Gly Gln Trp Asn Lys Pro Ser  
 20 25 30

Lys Pro Lys Thr Asn Met Lys His Val Ala Gly Ala Ala Ala Gly  
 35 40 45

Sequence Listing 05986-100M536-US1.txt

Ala Xaa Xaa Gly Gly Leu Gly Gly Xaa Xaa Xaa Gly Ser Ala Met Ser  
50 55 60

Arg Pro Leu Ile His Phe Gly Asn Asp Gly Gln Pro His Gly Gly Gly  
65 70 75 80

Gly Trp Gly Gln Gly Gly Thr His Gly Gln Trp Asn Lys Pro Ser Lys  
85 90 95

Pro Lys Thr Asn Met Lys His Val Ala Gly Ala Ala Ala Ala Gly Ala  
100 105 110

Xaa Xaa Gly Gly Leu Gly Gly Xaa Xaa Xaa Gly Ser Ala Met Ser Arg  
115 120 125

Pro Leu Ile His Phe Gly Asn Asp  
130 135

<210> 27  
<211> 73  
<212> PRT  
<213> Artificial

<220>  
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<220>  
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<220>  
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<223> Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<400> 27

Gly Gln Pro His Gly Gly Gly Gly Trp Gly Gln Gly Gly Thr His Gly  
1 5 10 15

Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His Val Ala  
20 25 30

Gly Ala Ala Ala Ala Gly Ala Xaa Xaa Gly Gly Leu Gly Gly Xaa Xaa  
35 40 45

Xaa Gly Ser Ala Met Ser Arg Pro Leu Ile His Phe Gly Asn Asp Xaa  
50 55 60

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa

65

70

<210> 28  
 <211> 136  
 <212> PRT  
 <213> Artificial

<220>  
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<220>  
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<220>  
 <221> MISC\_FEATURE  
 <222> (127)..(136)  
 <223> Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<400> 28

Gly Gln Pro His Gly Gly Gly Gly Trp Gly Gln Gly Gly Thr His Gly  
 1 5 10 15

Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His Val Ala  
 20 25 30

Gly Ala Ala Ala Ala Gly Ala Xaa Xaa Gly Gly Leu Gly Gly Xaa Xaa  
 35 40 45

Xaa Gly Ser Ala Met Ser Arg Pro Leu Ile His Phe Gly Asn Asp Gly  
 50 55 60

Gln Pro His Gly Gly Gly Gly Trp Gly Gln Gly Gly Thr His Gly Gln  
 65 70 75 80

Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His Val Ala Gly  
 85 90 95

Ala Ala Ala Ala Gly Ala Xaa Xaa Gly Gly Leu Gly Gly Xaa Xaa Xaa  
 100 105 110

Gly Ser Ala Met Ser Arg Pro Leu Ile His Phe Gly Asn Asp Xaa Xaa  
 115 120 125

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 130 135

<210> 29  
 <211> 83  
 <212> PRT

Sequence Listing 05986-100M536-US1.txt

<213> Artificial

<220>

<223> homolog of fragment of bovine prion

<220>

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<222> (1)..(10)

<223> Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<220>

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<222> (50)..(59)

<223> Xaa is Val, Val, Tyr, Met, Leu, Pro, Asp, Glu, Ly, Gly, or Ser

<220>

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<222> (74)..(83)

<223> Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<400> 29

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Gln Pro His Gly Gly  
1 5 10 15

Gly Gly Trp Gly Gln Gly Gly Thr His Gly Gln Trp Asn Lys Pro Ser  
20 25 30

Lys Pro Lys Thr Asn Met Lys His Val Ala Gly Ala Ala Ala Ala Gly  
35 40 45

Ala Xaa Xaa Gly Gly Leu Gly Gly Xaa Xaa Xaa Gly Ser Ala Met Ser  
50 55 60

Arg Pro Leu Ile His Phe Gly Asn Asp Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
65 70 75 80

Xaa Xaa Xaa

<210> 30

<211> 136

<212> PRT

<213> Artificial

<220>

<223> homolog of fragment of bovine prion

<220>

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<222> (1)..(10)

<223> Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<220>

<221> MISC\_FEATURE

Sequence Listing 05986-100M536-US1.txt

<222> (50)..(122)

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<220>

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<222> (127)..(136)

<223> Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<400> 30

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Gln Pro His Gly Gly  
1 5 10 15

Gly Gly Trp Gly Gln Gly Gly Thr His Gly Gln Trp Asn Lys Pro Ser  
20 25 30

Lys Pro Lys Thr Asn Met Lys His Val Ala Gly Ala Ala Ala Ala Gly  
35 40 45

Ala Gly Gly Leu Gly Gly Gly Ser Ala Met Ser Arg Pro Leu Ile His  
50 55 60

Phe Gly Asn Asp Gly Gln Pro His Gly Gly Gly Gly Trp Gly Gln Gly  
65 70 75 80

Gly Thr His Gly Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met  
85 90 95

Lys His Val Ala Gly Ala Ala Ala Ala Gly Ala Gly Gly Leu Gly Gly  
100 105 110

Gly Ser Ala Met Ser Arg Pro Leu Ile His Phe Gly Asn Asp Xaa Xaa  
115 120 125

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
130 135

<210> 31

<211> 199

<212> PRT

<213> Escherichia coli

<400> 31

Phe Val Thr His Leu Asn Arg Asn Lys Thr Pro Ile His Glu Lys Val  
1 5 10 15

Phe His Phe Asn Gln Glu Arg Glu Asp Gly Ile Ser Val Glu Val Ala  
20 25 30

Met Gln Trp Asn Asp Gly Phe Gln Glu Asn Ile Tyr Cys Phe Thr Asn  
35 40 45

Sequence Listing 05986-100M536-US1.txt

Asn Ile Pro Gln Arg Asp Gly Gly Thr His Leu Ala Gly Phe Arg Gly  
50 55 60

Ala Leu Thr Arg Thr Leu Asn Asn Tyr Met Asp Lys Glu Gly Phe Ser  
65 70 75 80

Lys Lys Ala Gln Ala Ala Thr Ser Gly Asp Asp Ala Arg Glu Gly Leu  
85 90 95

Thr Ala Val Val Ser Val Lys Val Pro Asp Pro Lys Phe Ser Ser Gln  
100 105 110

Thr Lys Asp Lys Leu Val Ser Ser Glu Val Lys Ser Ala Val Glu Ser  
115 120 125

Ala Met Asn Glu Lys Leu Ala Asp Phe Leu Ala Glu Asn Pro Ser Glu  
130 135 140

Ala Lys Asn Val Cys Ser Lys Ile Ile Asp Ala Ala Arg Ala Arg Glu  
145 150 155 160

Ala Ala Arg Lys Ala Arg Glu Met Thr Arg Arg Lys Gly Ala Leu Asp  
165 170 175

Leu Ala Gly Leu Pro Gly Lys Leu Ala Asp Cys Gln Glu Lys Asp Pro  
180 185 190

Ala Leu Ser Glu Leu Tyr Ile  
195

<210> 32  
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<220>  
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<220>  
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<223> Xaa is Val, Val, Tyr, Met, Leu, Pro, Asp, Glu, Lys, Gly, or Ser

<400> 32

Xaa Xaa Gly Gly Leu Gly Gly Xaa Xaa Xaa  
1 5 10